Hold for Release Until
Presented by Witness

Statement of

Bill D. Colvin
Inspector General

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

before the

Subcommittee on Legislation and National Security
Committee on Government Operations
U.S. House of Representatives

Mr. Chairman and Members of the Subcommittee, I am pleased to testify today on the audit and investigative oversight work the NASA Office of Inspector General performs at the Agency and among its contractors, and how this work relates to NASA's efforts at management and procurement reform. My testimony is divided into the following major areas: procurement oversight; product integrity; financial related activities; and, proactive NASA program evaluations.

I. PROCUREMENT OVERSIGHT

In fiscal year 1992, NASA's procurements totalled $13.5 billion as compared to Agency appropriations of $14.3 billion. Approximately 79 percent of the procurements were placed directly with business firms, another 9 percent with the California Institute of Technology for operation of the Jet Propulsion Laboratory and 12 percent with educational, nonprofit, other Government agency or outside U.S. interests. With such large amounts directed to Agency procurements, my office has directed a significant amount of attention to evaluating the economy and efficiency of operations, measuring procurement effectiveness, and the detection of fraud, waste and abuse. I would like to share with you some of our accomplishments.

A. AUDIT ACTIVITY

Subcontract Management

Subcontract management reviews performed at three major NASA centers revealed that work performed by subcontractors on NASA prime contracts was frequently overpriced and prime contractors were not achieving adequate competition in awarding

subcontracts. In one instance, profits ranging from 28 to 288 percent were realized on 41 percent of the subcontracts reviewed. Our audits determined that the number of contracts awarded noncompetitively ranged from 63 to 86 percent. These conditions resulted in NASA reimbursing contractors about $40 million in costs that we believe could have been avoided. NASA instructed its centers to focus greater attention on subcontractors, and developed incentives for prime contractors to improve subcontract management, including competition and pricing.

Excessive Award Fees

My office examined the area of award fee contracting, including a contractual feature known as "rollover," which permitted contractors to earn in subsequent periods award fees they had failed to earn in prior performance periods. We found that contract cost overruns were not adequately considered as part of the cost incentive evaluation criteria in determining the award fee amount. As a result, contractors have earned millions of dollars in award fees on contracts experiencing hundreds of millions of dollars in cost overruns. Additional award fee process issues needing improvement include: award fee processing time; use of retroactive award fee adjustments; recognition for minimal acceptable performance; and following award fee scoring guidance. We identified $5.8 million in cost avoidances that NASA could realize. In response, NASA removed all available award fee from the allowable cost category for one contract reviewed, and agreed to issue guidance emphasizing the need for technical, cost and schedule accomplishments when considering award fees earned.

Excessive Wage Rates

An agency-wide audit of nonunion employee wage rates found NASA was paying excessively for labor on cost-type support service contracts. Compensation reviews performed by DCAA on 15 of NASA's top 25 support service contracts identified $8.1 million in excess labor costs because compensation reviews were not performed and contractors failed to use wage survey data that would have assisted NASA in determining the reasonableness of wages. We estimated NASA could save $56.4 million over the remaining life of the contracts if wage rates more closely resembled those in the prevailing market place. NASA agreed to promote the use of wage surveys and directed center procurement officers to closely monitor contractor employee compensation.

Low Productivity of Contractor Employees

Insufficient contract monitoring was evident in reviews of NASA contractor employees. On-site contractor floorchecks performed at five NASA centers disclosed that many employees were asleep while on duty, engaged in personal activities when they should have been actively working, and had job charges completed in

advance on their time cards. The most prevalent abuses involved third-shift contractor employees. For the centers surveyed, we found 105 of 241 (44 percent) third-shift employees engaged in activities unrelated to the contract. The potential exists that third-shift non-productivity could be costing NASA an estimated $32 million per year or $103 million over the average remaining life of the contracts. Since the audit, NASA center procurement officials have implemented regular floorchecks of second and third shifts and requested DCAA to increase its emphasis on floorchecks.

Misclassification of Leases

Facility and equipment leases have also posed problems. Audits performed at two NASA centers disclosed that facility acquisitions were being classified as operating leases rather than as capital leases. Reclassifying these leases could save NASA over $40 million due to the extended period capital leases recognize and the accompanying differences in accounting treatment of lease costs. Similarly, two audits conducted of equipment acquisitions and on-site contractor procurements revealed contractors misclassified leases for vehicles and equipment, and leased rather than purchased super computers. Proper acquisition of these items could generate savings in excess of $9 million.

Contract Administration

For some time, I have been concerned about the effectiveness of NASA's controls over its annual contract administration and support requirements. DOD support to NASA contract administration was costing NASA $60 million annually. My office found that NASA may be unduly relying on DOD's requirements estimates and sufficient attention was not being paid to the billing rates charged to NASA. NASA has issued revised policy guidance in this area, and taken a more active role in managing, funding, and authorizing payment for contract administration and audit services performed by other U.S. Government organizations.

B. INVESTIGATIVE ACTIVITY

My staff has devoted substantial resources to procurement related investigations. We performed an analysis of investigative activities involving NASA's top 10 contractors over the past 10 years. The analysis showed that nine of these contractors were identified with investigative activity, eight repetitively so, as depicted in the chart below.

Each "X" represents one or more contractor related criminal, civil, and/or administrative investigations conducted by the OIG or by other law enforcement organizations that produced results and was closed during each fiscal year up to and including FY 1993. The last column shows on-going NASA OIG

investigations only. It should be noted that the contractors are not listed in any particular order, nor are they identified so as to protect the viability of on-going investigations.

NASA's TOP 10 CONTRACTORS

INVESTIGATIVE ACTIVITIES

CONTRACTOR	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	199?
A							X					X
B		X						X				X
C												
D			X			X	X	X	X			X
E			X									X
F					X	X		X				X
G						X		X	X		X	X
H			X	X	X	X	X		X	X		X
I												X
J	X	X	X			X						

A surge of investigative activity is illustrated for the current period and expected to continue for the foreseeable future. During the period FY 1990 to 1992, $32 million (98 percent) of the dollar recoveries resulting from OIG investigations were obtained from procurement fraud issues. Also, 41 (55 percent) of the criminal convictions obtained during that period resulted from procurement fraud investigations. While self-governance, voluntary disclosure, and ethics programs are practiced by contractors, they are not a panacea nor a substitute for Governmental oversight. Where a contractor is able to police itself adequately, the Government can spot check for compliance as appropriate, thus freeing precious resources to concentrate on contractors whose activities are more suspect.

Examples of our contractor related investigative work are summarized below:

- o A joint OIG/FBI investigation resulted in the indictment of a NASA employee for selling computer-related equipment developed under a NASA contract for private gain. The indictment alleges

that the employee entered into financial relationships with contractors over whom the employee exercised contract monitoring responsibilities. The equipment and software were exclusive to NASA at the time the employee offered them for sale and were not available elsewhere. The indictment also alleges the employee used Government facilities, schematic drawings, testing equipment, as well as Government and contractor personnel to deliver the equipment sold.

- An OIG investigation, supported by DCAA, recovered $394,000 charged to NASA contracts for a building leased by a contractor for its employees to prepare a proposal for an unrelated contract. The costs were billed to NASA contracts through the contractor's overhead rates.

- An OIG investigation determined that a contractor had improperly allocated foreign selling costs to two NASA contracts. The costs were allocated to the contracts prior to implementation of a Federal Acquisition Circular which permitted the practice. The contractor credited over $438,000 to the contracts.

- A joint OIG/Defense Criminal Investigative Service (DCIS) investigation of a contractor's mischarging costs to a major NASA program resulted in the contractor and one employee entering into a pretrial diversion agreement and the contractor repaying the Government over $6.9 million.

- An OIG investigation into alleged defective pricing involving a leasing arrangement for a super computer resulted in the recovery of approximately $1.2 million and a cost avoidance of approximately $3.5 million. A DCAA audit found that a contractor did not inform NASA negotiators that it was planning to buy and then assign the computer equipment to a subcontractor. The audit found that the contractor received excessive profits because the interest rate it quoted to the Government was higher than that which it was charged by the subcontractor.

C. NASA PROCUREMENT REFORMS

While OIG audits and investigations continue to surface problems in various NASA programs, NASA, to its credit, is continuing to take strides toward remedying these problems. Management initiatives are being undertaken concurrently in support of NASA's commitment to procurement reform. Some key initiatives are listed below.

- o Incentive Contracting
- o Contract Management Improvement
- o Mid-Range Procurement (Pilot Test Program)
- o Parallel Negotiation of Contracts
- o Small Disadvantaged Business Program

While we believe that all the initiatives should ultimately improve NASA's procurement processes, it is too early to conclude what impact the initiatives will have.

II. PRODUCT INTEGRITY

In previous sessions of Congress, I testified on deficiencies in the aerospace fastener and triple E parts industry. Our achievements in these areas have resulted in our securing convictions and recoveries, and more importantly, improved mission safety. I will highlight these very important reviews.

Aerospace Fasteners

As the result of problems associated with fasteners used on NASA flight hardware, my office performed reviews of aerospace fastener manufacturers and distributors. Our work disclosed that fastener certifications were often unsupported by test results. Product reviews of 17 fastener manufacturers showed that some certification statements were not supported by documented test results or testing was inadequate. Of the 17 manufacturer reviews conducted, 6 resulted in the issuance of product quality alerts. The installation of untested or undertested fasteners in flight hardware could have severe consequences.

In addition, we took exception to the nontraceability of fastener products in NASA and contractor inventories. For example, we found aerospace bolts that did not contain manufacturer identification symbols. Without these symbols, it is difficult for NASA to trace suspect fasteners when problems surface. Further, fastener stocks were not traceable to procurement documents, supplier certifications, and/or to supporting test results. For one contractor reviewed, about 75 percent of the total fastener inventory was stored by part number and was not traceable to manufacturer lot number.

Our concerns increased when we noted that current disposal practices for uncertifiable fasteners did not preclude their false recertification and resale to the Government, or to the public, for use in private or commercial aircraft. As a result of our efforts, NASA revised its policies to include establishing quality assurance standards that provide for the

independent testing of fastener products, requiring observation of testing at manufacturing sites, and subjecting suppliers to comprehensive product reviews.

We also have conducted a number of successful investigations in this area. For example, a recently completed joint OIG/DCIS investigation confirmed that a contractor had improperly tested fastener products between 1982 and 1989. The Department of Justice and the contractor negotiated an agreement whereby the contractor repaid the government $2.5 million.

Triple E Parts

Electrical, electronic, and electromechanical (triple E) parts consist of resistors, capacitors, diodes, transistors, wire and cable. They are used in critical flight and ground support equipment. As such, they are subject to higher reliability test requirements. Our audits found there is little assurance that triple E parts used in critical applications meet specified performance requirements. This means, for example, that resistors used in critical circuits may not perform as designed. This could result in loss of mission and life. While we found no deficient parts, the potential for using nonconforming parts is high because traceability of triple E parts is lacking. Manufacturers and distributors do not usually have objective evidence of quality tests performed to assure the reliability of triple E parts used in critical applications. In response, NASA revised its policies on the purchase of triple E parts requiring parts identification on purchase orders and certification of test results.

We have also conducted successful investigations in this area. One such case is summarized below.

- The president and sales manager of a resistor supply company were indicted as a result of a joint investigation by the NASA OIG and DCIS. The investigation indicated that the company was re-marking resistors supplied to NASA and DOD to show raised temperature coefficients, false failure rates and incorrect manufacture date codes. Additionally, standard resistors were being re-marked to indicate that they were high reliability resistors. The company pled guilty and was ordered to pay $310,000 in criminal forfeitures and $48,000 in damages. The company president pled guilty, was sentenced to prison, and ordered to pay restitution of $172,000. The sales manager also pled guilty and was sentenced to prison. The contractor was debarred for 3 years.

III. FINANCIAL RELATED ACTIVITIES

Chief Financial Officers Act Compliance

In June 1993, the OIG completed its first audit of NASA's financial statements (FY 1992) required by the Chief Financial Officers Act of 1990 (P.L. 101-576). We reviewed NASA's statements to determine if they were fairly presented, internal financial controls were adequate, funds and other assets were properly safeguarded, and obligations were in accordance with applicable laws and regulations.

Because suitable documentation was not provided, we did not express an opinion on the FY 1992 statements. Documentation for selected accounts could not be reconstructed, put into useable form, or was received too late to use. We consider NASA's financial and accounting systems to be a high risk area in need of increased attention.

A successful audit of NASA's FY 1993 financial statements depends on a more positive and concerted effort by NASA financial managers and OIG auditors. To that end, NASA management and the OIG are working together during the next reporting period to identify the support documentation and financial data necessary to ensure that FY 1993 financial statements are auditable.

Antideficiency Act Compliance

In our opinion, NASA centers had five technical administrative violations of the Antideficiency Act as of September 30, 1991. These violations required reporting in accordance with NASA's governing regulations and statutes. The violations were validated from among 22 General Accounting Office-reported instances, totalling $13 million, where 6 NASA centers may have exceeded authorized funding. The violations were caused by accounting errors and internal control breakdowns such as not regularly reconciling funding authorization documents to center financial records.

Because funding authorizations were not exceeded at the Agency appropriations level, NASA financial management officials disagreed with characterizing the errors as violations of the Antideficiency Act. However, NASA agreed to make changes to ensure that the situations we found during the review would not recur. Based on NASA's internal guidance which requires that funding be controlled at the center level, we continue to believe that technical administrative violations of the Act did occur.

IV. PROACTIVE PROGRAM EVALUATION

The Vice President's Report of the National Performance Review (NPR) advises reorienting the Inspectors General from strict compliance auditing to evaluating management control systems. In the future, the Inspectors General should not only look for waste, fraud and abuse, but also help improve control systems to prevent waste, fraud and abuse and ensure efficient, effective service. I have been advocating more program and project audits as is contained in my long term vision statement and incorporated into my budget justifications.

I have a number of ongoing initiatives which I believe are within the spirit of the NPR recommendation. My office has been doing work on the Space Station Program, Advanced Solid Rocket Motor (ASRM), Spacehab, and the Consortium for International Earth Science Information Network (CIESIN). The issues raised by these audits and assessments give the Congress and NASA the opportunity to appropriate and expend funds in a more efficient and economical manner, in a way which permits us to report positively on funds put to better use rather than negatively on funds unwisely spent. This is ongoing work subject to change. Consideration of these issues up front allows the Agency to proceed with these programs knowingly and intelligently, and on a fiscally sound basis. It also allows the Congress to make better informed decisions during budget debates. Some examples of our work in this area are discussed below.

Additionally, members of my staff have been proactively involved in NASA teams working on such areas as functional management, support service contracting, and civilian agency contracting. This proactive approach permits us to provide our expertise to management in the development and restructuring of operations, rather than waiting until the actions have been completed and providing after-the-fact criticism.

Space Station Program Assessment

The Space Station program represents one of NASA's premier space endeavors and the next frontier for man's presence in space. The NASA Administrator asked my office to conduct an assessment of the Space Station program. We focused on cost, schedule, and performance issues, along with overall management of the effort. The assessment noted that estimates of cost overruns (at one point $1 billion on one of the main three contracts) were difficult to establish because of problems in recording and reporting such estimates. For example, cost reports sometimes included inaccurate contractor estimates to complete work. The report recommended improvements in cost reporting that would provide NASA with accurate, more reliable estimates of the costs to complete the Space Station.

In another area, serious doubts were raised about a contractor's ability to produce a quality power system for the station. The power system is an integral part of the Space Station and one of the first components to be deployed into space. We recommended an independent technical assessment of the system, including an analysis of the impact of the reduced level of planned testing and tight timeframes on the ability to timely produce and deliver a quality power system.

In June 1993, the President decided to discontinue the Freedom design and approved a smaller, less costly design. Although NASA management essentially concurred with our recommendations, the Agency is still in the process of finalizing the design and setting up a new management structure. Until these actions are addressed, it is unclear how the recommendations will be implemented.

Advanced Solid Rocket Motor (ASRM) Program

To improve the Space Shuttle's overall safety and reliability, and increase its lift capacity by approximately 12,000 pounds, NASA began developing the ASRM. Our assessment of the cost estimating and schedule changes occurring on the ASRM revealed the program may no longer be necessary, a potential savings of $2.6 billion. We found that an existing redesigned motor has proven to be safe and reliable. Also, the additional lift capacity needed to launch two of the Shuttle's primary payloads may no longer be necessary because design changes have occurred to both the Space Station and the Advanced X-ray Astrophysics Facility (AXAF). We recommended NASA reevaluate the overall programmatic need for the ASRM. NASA management nonconcurred, stating that numerous strategic planning exercises were in process, including Space Station redesign, and to review ASRM before these studies were concluded would be unproductive. We asked management to reconsider, citing cost increases, schedule slippages, and NASA's consideration of the Super Lightweight External Tank, which will offer many of the increased capabilities of the ASRM.

Spacehab

In August 1988, NASA agreed to provide shuttle launch and associated services for launching the Spacehab, Inc. commercial middeck augmentation module. The module contains 50 lockers intended for rental ($1.6 million per locker) by commercial activities. Spacehab agreed to pay NASA $28.2 million for each of six shuttle missions needed to launch the module for a total of $169.2 million. The company intended to use locker space revenue to pay for the launch services. However, Spacehab's only locker customers to date have been NASA (200 lockers over 6 flights at $184 million) and the European Space Agency (1 locker). Because of Spacehab's financial position, NASA has accelerated its usage of lockers on earlier flights to help generate greater up front revenues.

Because Spacehab has been unable to generate commercial interest in its product, NASA's contract with Spacehab has not had its intended effect of fostering the commercialization of space. It also brings into serious question the continued financial viability of Spacehab and its ability to pay launch costs. FY 1994 is a crucial decision point for NASA since additional contract progress payments will be due. If the program fails, NASA will be at risk of investing $68 million toward lockers scheduled for flights which will never be flown. We recommended that NASA: 1) justify the continued support of the Spacehab contract; and 2) if continued support is not justified, limit FY 1994 funding to the completion of two flights only.

CIESIN

Congress mandated FY 1990 funding to contract with a newly created Consortium for International Earth Science Information Network (CIESIN). CIESIN's purpose is to develop recommendations and draft plans to achieve the utilization of earth science data for research and public policy purposes.

Although NASA considered CIESIN duplicative of ongoing/planned Earth Observing System (EOS) activity, NASA approved the development of CIESIN's information cooperative network. The network will allow scientists in nonearth science fields, policy makers, and other nonearth science users to find and access EOS data products. The approval was given because it was considered supportive of global change research priorities. However, NASA does not consider the mission critical to the success of EOS.

NASA management acknowledged their lack of expertise relative to social sciences and their resulting inability to effectively direct CIESIN. Despite NASA's reservations, $41.4 million was earmarked for construction of a new CIESIN facility in Saginaw, Michigan. The facility (170,000 square feet) is projected to hold 350 employees; CIESIN currently employs 78 people. Until CIESIN's role is definitized, the proposed staffing level cannot be properly evaluated and, even at the 350 staff level, the building's size appears excessive. Our audit work is ongoing at this time.

V. CONCLUSION

In summary, Mr. Chairman, I believe that the NASA Office of Inspector General has made and will continue making significant contributions to the improvement of NASA programs and operations. We have assessed, and had a hand in improving, key operational areas within NASA such as procurement and product integrity. Where necessary, we have ferreted out waste, fraud, and abuse in these areas. We have also devoted a large amount of resources in helping NASA improve its financial management

system and budgetary control processes. We are also moving vigorously into program and project evaluation work cooperatively with Agency managers. Our work in these areas has the potential to improve the effectiveness and efficiency of NASA programs and to help make better use of the taxpayers' money. In responding to our work, NASA management has been aggressive in pursuing corrective actions such as procurement reform and renewed efforts to improve its financial data and reports. While much progress has been made, much more remains to be done. Our plan is to move even more aggressively into in-depth analyses of NASA programs. I believe that, in this way, the OIG can become a full partner in improving NASA's diverse missions.